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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/841,486	04/25/2001	Yasuo Iwasa	Q63961	4521
7590	04/20/2005		EXAMINER	
SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC 2100 PENNSYLVANIA AVENUE, N.W. WASHINGTON, DC 20037-3213			VO. HAI	
			ART UNIT	PAPER NUMBER
			1771	

DATE MAILED: 04/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/841,486

Applicant(s)

IWASA ET AL.

Examiner

Hai Vo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 8-11 and 13-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-11 and 13-19 is/are rejected.
- 7) ☒ Claim(s) 20 and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

PROSECUTION REOPENED

1. In response to the reversed/remanded decision by the Board of Patent Appeals and Interferences, prosecution on the merits of this application is reopened on claims 1-6, 8-11, and 13-19. It is ordered that the examiner is to determine whether the ink receiving layer exemplified in the Arai patent (US 4,686,118) taken alone or in combination with either one of the following Japanese patents JP 09-202048, JP 09-314983 and JP 09-001920 is substantially identical to the claimed stretched porous resin. Neither the Arai '118 nor the cited Japanese patents teaches or suggest the **porous** ink receiving layer. However, upon further consideration, the ink receiving layer exemplified in Arai et al (US 6,632,487) is identical or slightly different than the claimed stretched porous resin film (see rejections below).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 1-6, 8-10, and 13-19 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over WO 99/46117. US 6,632,487 to Arai et al is relied on as an equivalent form of WO 99/46117. Arai teaches a sheet useful as an image-receiving sheet for an ink-jet recording comprising a substrate and a porous resin film provided on the substrate (abstract). The porous resin film comprises 95 parts by weight of a mixture of hydrophilic and hydrophobic resins and 5 parts of an inorganic fine powder (example 10). The porous film contains 5 to 50% by weight of the hydrophilic resin based on total amount of the hydrophilic resin and hydrophobic resin (column 7, lines 25-30). Likewise; the porous film contains 5 to 50% by weight of the hydrophilic resin and 95 to 50% by weight of the hydrophobic resin. The ratio of the amount of the hydrophilic resin to the amount of the hydrophobic resin is 5:95 to 1 within the claimed range. The hydrophilic resin is polyethylene oxide (example 10). The porous resin film is prepared by kneading (column 9, lines 40-45). The inorganic fine powder has an average particle size of 1 to 5 microns (column 8, lines 32-35). The hydrophilic resin is polyolefin (column 5, lines 8-10). Arai does not disclose the hydrophilic thermoplastic resin capable of absorbing 5 g/g or more of water in 30 minutes. However, it appears that Arai uses the same polyolefin as the hydrophilic resin as Applicants. Therefore, it is the examiner's position that the absorbing capability would be inherently present. Like material has like property. This is in line with *In re Spada*, 15 USPQ 2d 1655 (1990) which holds that products of identical chemical composition can not have mutually exclusive properties. Arai does not

specifically disclose an average contact angle, porosity, and pore density of the porous resin film. However, it appears that the porous resin film meets all the structural limitations as required by the claims. The porous resin film comprises 95 parts by weight of a mixture of hydrophilic and hydrophobic resins and 5 parts of an inorganic fine powder (example 10). The ratio of the amount of the hydrophilic resin to the amount of the hydrophobic resin is 5:95 to 1 within the claimed range. The porous resin film is prepared by kneading (column 9, lines 40-45). The inorganic fine powder has an average particle size of 1 to 5 microns (column 8, lines 32-35). The hydrophilic resin is polyolefin (column 5, lines 8-10). The hydrophilic resin is polyethylene oxide (example 10). It seems from the claim, if one meets the structure recited, the properties must be met or Applicant's claim is incomplete. Like material has like property. This is also in line with *In re Spada*, 15 USPQ 2d 1655 (1990). Hence, it is the examiner's position that the average contact angle, porosity, and pore density would be inherently present. Arai does not specifically disclose that the porous resin is stretched and the inorganic fine powder being subjected in an intermeshing twin screw extruder at a screw shear rate of 300 sec-1 or higher. However, they are product-by-process limitations not as yet shown to produce a patentably distinct article. It is the examiner's position that the porous resin film of Arai is identical to or only slightly different than the claimed porous resin film prepared by the method of the claim, because both articles are formed from the same materials, having structural similarity. The porous resin film comprises 95 parts by weight of a mixture of hydrophilic and hydrophobic resins and 5 parts of an

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inorganic fine powder (example 10). The ratio of the amount of the hydrophilic resin to the amount of the hydrophobic resin is 5:95 to 1 within the claimed range. The porous resin film is prepared by kneading (column 9, lines 40-45). The inorganic fine powder has an average particle size of 1 to 5 microns (column 8, lines 32-35). Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or an obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has been shifted to the applicant to show unobvious differences between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289,291 (Fed. Cir. 1983). It is noted that if the applicant intends to rely on Examples in the specification or in a submitted Declaration to show non-obviousness, the applicant should clearly state how the Examples of the present invention are commensurate in scope with the claims and how the Comparative Examples are commensurate in scope with Arai.

5. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO 99/46117 as applied to claim 1 above, and further in view of JP 07-195827. Arai fails to teach the alkylene oxide polymer is a reaction product of an alkylene oxide compound and a dicarboxylic acid compound. Fujita, however, teaches a recording sheet used in printing made from an alkylene oxide polymer which is a reaction product of an alkylene oxide compound and a dicarboxylic acid compound

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(abstract). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ an alkylene oxide polymer as a reaction product of an alkylene oxide compound and a dicarboxylic acid compound because of its practical and economical method of preparing the alkylene oxide polymer of the recording sheet.

Allowable Subject Matter

6. Claims 20 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Arai discloses an ink jet recording medium comprising a substrate and a porous resin film containing colorants. One of skilled in the art would not be motivated to add an additional colorant fixing layer on at least one side of the porous resin film from the impractical view of the weight and cost concern.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Vo whose telephone number is (571) 272-1485. The examiner can normally be reached on M,T,Th, F, 7:00-4:30 and on alternating Wednesdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HV

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